

PATENT
Attorney Docket No. MS#39124.2/40062.117USRE
Express Mail Label No. EL661402415US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of

COMER et al.

Patent No.: 5,845,300

Issue Date: December 1, 1998

Reissue No.:

Filing Date: December 1, 2000

For: METHOD AND APPARATUS FOR
SUGGESTING COMPLETIONS FOR A
PARTIALLY ENTERED DATA ITEM BASED
ON PREVIOUSLY-ENTERED, ASSOCIATED
DATA ITEMS

Examiner:

Art Unit:

REISSUE APPLICATION PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

Dear Sir:

Please enter the following amendments in the above-referenced Reissue Application:

IN THE CLAIMS

Please add new claims 39-60 as follows:

39. A method for completing a partial data entry for an active cell of a spreadsheet having a plurality of cells defining a grid of rows and columns, the method comprising:

invoking an edit mode for the active cell;

5 identifying a list of completed data items from a search region within the spreadsheet, said search region including one of (1) cells sharing the same column as the active cell, (2) cells sharing the same row as the active cell, (3) cells within the same

column as the active cell and within a range of N cells from the active cell, wherein N is an integer, and (4) cells within the same row as the active cell and within a range of N cells from the active cell, wherein N is an integer;

10 defining a partial data entry within the active cell;

identifying a matching completed data item from within said list of completed data items that corresponds to said partial data entry;

15 displaying said matching completed data item as a suggested completion command for said partial data entry;

receiving an acceptance command in association with said suggested completion; and

in response to said acceptance command, storing said partial data entry with said suggested completion within the active cell.

40. The method of claim 39, further comprising:

receiving a command pertinent to said suggested completion; and

operating on said suggested completion in accordance with said command.

41. The method of claim 40, wherein said command is a user response and said operating operation further comprises:

if said response contains a modified partial data item, verifying said suggested completion comprises said modified partial data item;

5 if said response is a rejection of said suggested completion, displaying said partial entry; and

if said response is a command to exit said edit mode, clearing the active cell.

42. The method of claim 39, wherein said identifying a list of completed data items operation further comprises:

retrieving a plurality of completed data items from said search region within the spreadsheet to form an associated list of completed data items;

5 filtering said associated list of completed data items to generate a filtered list; and sorting said filtered list to generate said list of completed data items.

43. The method of claim 42, wherein said search region within the spreadsheet is positionally based on the active cell and said identifying a list of completed data items operation further comprises selecting a block of contiguous cells, said block being coterminous with the active cell.

44. The method of claim 43, wherein said block is confined to one of the columns of cells within the spreadsheet, said column containing the active cell.

45. The method of claim 43, wherein said block is confined to one of the rows of cells within the spreadsheet, said row containing the active cell.

46. The method of claim 42, wherein said filtering operation further comprises removing surplus duplicated completed data items from said associated list of completed data items.

47. The method of claim 42, wherein said filtering operation further comprises:

removing completed data items that are not duplicated in said associated list of completed data items; and

5 removing surplus duplicated completed data items from said associated list of completed data items.

48. The method of claim 42, wherein each of said completed data items comprises at least one glyph, and said filtering operation further comprises removing completed data items that contain less than N glyphs, where N is an integer greater than one.

49. The method of claim 42, wherein said completed data items comprises formatting information, and said filtering operation further comprises removing completed data items that do not comprise a specific formatting information.

50. The method of claim 39, wherein said identifying a list of completed data items operation further comprises:

defining a mask comprising said partial data entry;

searching said list of completed data items for at least one matching data item

5 corresponding to said mask; and

in response to finding at least one said matching data item, equating said suggested completion to said matching data item.

51. The method of claim 39, wherein said identifying a list of completed data items operation further comprises:

defining a mask comprising said partial data entry;

searching said list of completed data items for at least one matching data item

5 corresponding to said mask; and

in response to finding more than one of said matching data items, deferring identification of said suggested completion.

52. The method of claim 39, wherein said identifying a list of completed data items operation further comprises:

defining a mask comprising said partial data entry;

searching said list of completed data items for at least one matching data item

5 corresponding to said mask; and

in response to not finding said matching data item, disabling any further searches of said list of completed data items for the active cell.

53. The method of claim 52, further comprising re-enabling searches of said list of completed data items for the active cell.

54. The method of claim 39, wherein said displaying operation further comprises replacing said partial data entry in the active cell with said suggested completion.

55. The method of claim 42, wherein said displaying operation further comprises distinguishing a first portion of said suggested completion that comprises said partial data item from a second portion of said suggested completion that does not comprise said partial data entry.

56. The method of claim 39, further comprising operating on said suggested completion in accordance with said acceptance command to perform a case conversion, said case conversion comprising an adjustment of the case of said partial entry to correspond to the case of said suggested completion.

57. A method for completing a partial data entry for an active cell of a spreadsheet having a plurality of cells defining a grid of rows and columns, the method comprising:

invoking an edit mode for the active cell;

5 identifying a list of completed data items from a search region within the spreadsheet, said search region including cells within the same column as the active cell;

defining a partial data entry within the active cell;

10 identifying a matching completed data item from within said list of completed data items that corresponds to said partial data entry;

displaying said matching completed data item as a suggested completion command for said partial data entry;

receiving an acceptance command in association with said suggested completion; and

15 in response to said acceptance command, storing said partial data entry with said suggested completion within the active cell.

58. The method of claim 57, wherein said search region is further limited to a range of N cells from the active cell, wherein N is an integer.

59. A method for completing a partial data entry for an active cell of a spreadsheet having a plurality of cells defining a grid of rows and columns, the method comprising:

invoking an edit mode for the active cell;

5 identifying a list of completed data items from a search region within the spreadsheet, said search region including cells within the same row as the active cell;

defining a partial data entry within the active cell;

10 identifying a matching completed data item from within said list of completed data items that corresponds to said partial data entry;

10 displaying said matching completed data item as a suggested completion command for said partial data entry;

10 receiving an acceptance command in association with said suggested completion; and

in response to said acceptance command, storing said partial data entry with

15 said suggested completion within the active cell.

60. The method of claim 61, wherein said search region is further limited to a range of N cells from the active cell, wherein N is an integer.

REMARKS

This Preliminary Amendment is filed concurrently with a Reissue Application for U.S. Patent No. 5,845,300 (the '300 patent). By this Amendment, new claims 39-60 are added, with claims 39, 57, and 59 being independent claims.

REISSUE APPLICATION WITHIN 2 YEARS OF ISSUE DATE

The issue date of the '300 patent is December 1, 1998. Thus, the Reissue Application is filed within the 2-year anniversary of the original patent (see MPEP 1403) and, under 35 USC 251, the patentee is entitled to seek a reissue of the '300 patent broadening the scope of the issued claims.

NO NEW MATTER ADDED

No new matter is believed added by this Amendment. Claim 39 essentially repeats all the elements and limitations of issued claim 1, apart from the operation of "identifying a list of completed data items from a search region within the spreadsheet, said search region including one of (1) cells sharing the same column as the active cell, (2) cells sharing the same row as the active cell, (3) cells within the same column as the active cell and within a range of N cells from the active cell, wherein N is an integer, and (4) cells within the same row as the active cell and within a range of N cells from the active cell, wherein N is an integer."

As described in the '300 patent, ". . . adjacent elements in a common row; elements that are within a range of N cells from the active cell; all data items in a column; all data items formatted in a particular manner (i.e. bolded, underlined, italicized, etc.); and other similar methods can be used for determining which data items are associated." ('300 patent, col. 12, lines 40-46). Thus, support for claim 39 can be readily found in the '300 patent.

Likewise, claim 57 essentially repeats all the elements and limitations of issued claim 1, apart from the operation of "identifying a matching completed data item from within said list of completed data items that corresponds to said partial data entry." Since, as highlighted above, support for the limitations of this claim element can be found in the '300 patent, no new matter is believed to be introduced by claim 57. Similarly, claim 59 recites, in part, "identifying a matching completed data item from within said list of completed data items that corresponds to said partial data entry." Support for the limitations of this claim are also found in the '300 patent as discussed above, and therefore no new matter is believed added by claim 59.

Dependent claims 40-56 echo the limitations found in issued dependent claims 2-18. Thus, no new matter is believed to be introduced by dependent claims 40-56.

Furthermore, both dependent claims 58 and 60 limit the list of completed data items to "a range of N cells from the active cell, wherein N is an integer." The '300 patent teaches,

"elements that are within a range of N cells from the active cell . . . can be used for determining which data items are associated." ('300 patent, col. 12, lines 41-46). Accordingly, support for this limitation can be found in the '300 patent and no new matter is believed added by dependent claims 58 and 60.

SUBJECT MATTER OF THE NEW CLAIMS WAS NOT PREVIOUSLY SURRENDERED

It is respectfully submitted that the subject matter in claims 39-60 was never argued during prosecution of the '300 patent. Therefore, it is believed that the subject matter of claims 39-60 was never surrendered by the patentee during prosecution of the '300 patent.

Claim 1, as originally filed, recited, "generating a list of completed data items from a range of said cells having an association with said active cell." During prosecution, claim 1 was rejected under 35 USC 103 as obvious over Smith, Do It Yourself Databases, MacUser, v.9, n.11, p.126(8), 11/93 in view of Novell, Quattro Pro User's Guide, 1994 and Sullivan, Intuit's Upgrade Quicken's Pace of Personal Finance, MacWeek v.7, n.29, p.52(2), 7/19/93. Specifically, the Examiner cited the Smith reference as showing the operation of generating a list of completed data items by searching the database for previous entries. (See Paper No. 5).

Although the prosecuting attorney maintained that Smith only describes searching the entire database for previous entries rather than "generating a list," claim 1 was later amended in response to a final Office Action to recite, "identifying a list of data items from a search region within said spreadsheet comprising a table of contiguous data-containing cells encompassing said active cell and bordered by empty cells." Upon initial presentation of the amend claim 1, the claim was allowed and a Notice of Allowance for the application was sent by the Examiner. (See Paper No. 9).

The limitations introduced in claims 39, 57, and 59 of the present Amendment were never argued during prosecution. In particular, the limitation of the "search region including one of (1) cells sharing the same column as the active cell, (2) cells sharing the same row as the active cell, (3) cells within the same column as the active cell and within a range of N cells from the active cell, wherein N is an integer, and (4) cells within the same row as the active cell and within a range of N cells from the active cell, wherein N is an integer," as recited in claim 39, was never discussed during prosecution of the '300 patent.

Furthermore, the limitations of search regions "within the same column as the active cell,"

and "within the same row as the active cell," as recited in claims 57 and 59 respectively, were never argued during prosecution of the '300 patent.

It should also be observed that claim 1 was amended from a very broad recitation of a "search region" to a narrow recitation of "search region" during prosecution of the '300 patent. Therefore, the patentee is "free to acquire, through reissue, claims that are narrower in scope in all aspects than claims canceled from the original application to obtain a patent." See MPEP 1412.02.

Specifically, claim 1 as originally filed recited "generating a list of completed data items from a range of said cells having an association with said active cell." In other words, the search region encompassed a range of cells having "an association" with the active cell. This process of determining data items (i.e., the scope of this "search region") was considered to be the "most liberal" since all data items entered into a spreadsheet and any associated sheets could be considered to be associated with the active cell. (See '300 patent, col. 18, lines 55-57).

Although the prosecuting attorney contended that the Smith reference only describes searching the entire database for previous entries, the Examiner asserted that the term "association" was extremely broad and could be interpreted to encompass searching the entire database. (See Paper No. 7). As a result, claim 1 was amended to recite "a search region within said spreadsheet comprising a table of contiguous data-containing cells encompassing said active cell and bordered by empty cells." This search region is characterized in the specification of the '300 patent as a "more restrictive approach." (See '300 patent, col. 18, lines 61-65).

This limitation to the search region was more restrictive than necessary to overcome the Examiner's claim rejections. The prosecuting attorney failed to appreciate other search region definitions disclosed in the '300 patent which also distinguish the cited prior art patent but which are narrower in scope than claim 1 of the original application. See col. 12, lines 39-46. Thus, the full scope of the invention is not believed to be claimed in the '300 patent.

Therefore, it is respectfully submitted that the patentee is not attempting to recapture subject matter forfeited during prosecution of the '300 patent by presentation of this Reissue Amendment. Rather, the patentee is pursuing claims that are clearly "more restrictive" than the original ("most liberal") claim that was rejected by the Examiner.

CLAIMS 39-60 ARE ALLOWABLE

Claims 39-60 are believed allowable over the references cited in the '300 patent and the Reissue Application should be allowed.

Claim 39 substantially repeats the elements and limitations of issued claim 1, except that the a search region is claimed to include "one of (1) cells sharing the same column as the active cell, (2) cells sharing the same row as the active cell, (3) cells within the same column as the active cell and within a range of N cells from the active cell, wherein N is an integer, and (4) cells within the same row as the active cell and within a range of N cells from the active cell, wherein N is an integer." It is respectfully submitted that none of the Smith, Novell, and Sullivan references, along or in combination, describe the search region of claim 39.

The Smith reference appears directed toward searching an entire database of previously entered database items. Consequentially, the search region for active data has no defined boundary parameters in Smith and all previously entered database items are considered to be associated with the active data. Thus, Smith is not believed to teach or suggest a search region based on an active cell's physical association to other data items within the spreadsheet, as recited in claim 39.

In the Novell reference, a Speedfill function for filling in a range of cells in a spreadsheet is described. The Speedfill function, however, requires the user to select one or more seed values in order to identify and automatically complete a series. (See Novell, page 47). Thus, the Speedfill function of Novell does not take into consideration an active cell's physical association to other data items within the spreadsheet, as recited in claim 39.

Similarly, the QuickFill feature described in the Sullivan reference appears to rely on a field identifier in order to generate a list of previously entered data items. Unlike claim 39, the method used by Sullivan in generating a list of completed data items is not based on the physical association between an active cell and other data containing cells in a spreadsheet. Consequently, for at least these reasons, claim 39 is believed allowable over the cited prior art.

Claims 40-56 are substantially identical to issued claim 2-18, and are dependent on and further limit the subject matter of claim 39. Since claim 39 is allowable, claims 40-56 are also believed allowable for at least this reason.

Claim 57 is substantially identical to claim 39 expect that only a single search region is defined, i.e., a region "including cells within the same column as the active cell." Thus, the search region of claim 57 is based on the physical association between an active cell and other data containing cells in a spreadsheet. As discussed above, it is believed that the Smith, Novell, and Sullivan references, alone or in combination, do not teach using a search region based on the physical association between an active cell and other data containing cells in a spreadsheet. Thus, claim 57 is believed allowable over the references cited in the '300 patent.

Similarly, claim 59 is substantially identical to claim 39 and recites only a single search region "including cells within the same row as the active cell." Thus, the search region of claim 59 is also based on the physical association between an active cell and other data containing cells in a spreadsheet. As discussed above, it is believed that the Smith, Novell, and Sullivan references, alone or in combination, do not teach using a search region based on the physical association between an active cell and other data containing cells in a spreadsheet. Thus, claim 59 is believed allowable over the references cited in the '300 patent.

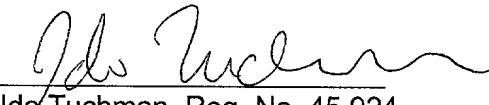
Claims 58 and 60 are dependent on and further limit the subject matter of claims 57 and 59 respectively. Since claims 57 and 59 are allowable, claims 58 and 60 are also believed allowable for at least this reason.

CONCLUSION

In view of the forgoing amendments and remarks, it is respectfully submitted that this Reissue Application is now in condition for allowance and such action is respectfully requested. If any points remain at issue which the Examiner feels could best be resolved by a telephone interview, the Examiner is urged to contact the attorney below.

Respectfully submitted,

Dated: December 1, 2000


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